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TRENDS IN CAUSE AND BIRTHWEIGHT-SPECIFIC INFANT MORTALITY IN NORTH CAROLINA, 1987-88 TO 1991-92

by

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ABSTRACT

Between 1987-88 and 1991-92, infant mortality declined dramatically in North Carolina. This study examines trends in infant mortality according to cause of death and infant birthweight, to identify those areas that contributed most to the improvement in birth outcomes noted in the state during this period. Mortality data for these time periods were compared, using matched live birth and infant death certificates.

During this period, the reduction in infant mortality was attributable to improvements in birthweight-specific survival rather than to changes in the birthweight distribution; the percentage of low and very low birthweight births actually increased slightly during this time. The magnitude of the decline in mortality was similar for infants delivered very low birthweight, moderately low birthweight, and normal birthweight. Improved survival of low birthweight infants accounted for about 60 percent of the overall decline in infant mortality during this period, while improvements in mortality among normal birthweight infants accounted for about 40 percent of the decline.

Reductions in the risk of death for a variety of causes contributed to the overall improvement in infant mortality, although the experience of white and minority infants differed in this regard. A decreased risk of mortality due to congenital malformations and respiratory distress syndrome were the major factors responsible for the overall decline in infant mortality among whites, while for minorities, decreases in deaths from sudden infant death syndrome (SIDS) and "other perinatal conditions" accounted for a large proportion of the decline. Minority infants had a higher risk of mortality than white infants for each cause of death, but the differences were particularly pronounced for causes of death associated with extreme prematurity.

The findings of this study—that reductions in infant mortality occurred among all birthweight groups and among a wide variety of causes of death—suggest that no single strategy was responsible for the overall decline in infant mortality seen in these years. These findings suggest that, if birth outcomes are to continue to improve, a broad range of interventions will need to be pursued aggressively. Efforts directed at preventing the three leading causes of infant death—birth defects, low birthweight, and SIDS—hold the greatest potential for achieving further significant reductions in infant mortality.

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